

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: H01Q 1/24, H01Q 1/38, H01Q 9/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: H01Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol.1997, no. 10 31 August 1999 (1999-08-31) & JP11127010 A (SUGANO TAKAKI), 11 May 1999 (1999-05-11) abstract, figure 9 --	1,4-6
A	US 5936583 A (SEKINE ET AL), 10 August 1999 (10.08.1999), column 13, line 30 - line 54; column 14, line 23 - line 38, figures 19,22 --	1,4-6
A	US 4800392 A (GARAY ET AL), 24 January 1989 (24.01.1989), see the whole document --	1,4-6

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

14 December 2004

Date of mailing of the international search report

15 -12- 2004

Name and mailing address of the ISA/

Swedish Patent Office

Box 5055, S-102 42 STOCKHOLM

Facsimile No. +46 8 666 02 86

Authorized officer

BO GUSTAVSSON/BS

Telephone No. +46 8 782 25 00

BEST AVAILABLE COPY

INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 2004/000531

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,A	EP 1439603 A1 (FILTRONIC LK OY), 21 July 2004 (21.07.2004), see the whole document -- -----	1,4-6

BEST AVAILABLE COPY

INTERNATIONAL SEARCH REPORT

Information on patent family members

27/11/2004

International application No.

PCT/FI 2004/000531

US	5936583	A	10/08/1999	DE	69315939 D,T	20/05/1998
				EP	0590671 A,B	06/04/1994
				JP	3457351 B	14/10/2003
				JP	6169217 A	14/06/1994
				JP	2002305407 A	18/10/2002
				JP	2002320017 A	31/10/2002

US	4800392	A	24/01/1989	NONE		
----	---------	---	------------	------	--	--

EP	1439603	A1	21/07/2004	EP	1439601 A	21/07/2004
				EP	1439602 A	21/07/2004
				EP	1439604 A	21/07/2004
				FI	113586 B	00/00/0000
				FI	113587 B	00/00/0000
				FI	20030059 D,V	17/02/2003
				FI	20030093 D	00/00/0000
				FI	20030193 A	16/07/2004
				FI	20030567 A	16/07/2004
				US	20040140934 A	22/07/2004
				US	20040140935 A	22/07/2004
				US	20040145527 A	29/07/2004
				US	20040147297 A	29/07/2004
				FI	5918 U	27/08/2003

BEST AVAILABLE COPY